

STATUS OF THE CLAIMS

1. (currently amended) A system for predicting ictal onset in a subject comprising:
a. a first data sensor positioned on the scalp of a subject near the focal point of ictal onset;

b. a second data sensor positioned on the scalp of said subject, wherein said second data sensor is remote from said first data sensor; and

c. a processor configured to analyze data collected at more than one time point, wherein said data for each time point is collected from said first and said second data sensors, wherein said processor performs to provide a nonlinear mathematical manipulation of said data ~~collected from said first and from said second data sensors thereby producing~~, wherein said ~~nonlinear mathematical manipulation produces~~ a first marginal predictability ~~values~~value, and ~~[[a]]~~ second marginal predictability ~~values for each time point, wherein said processor is configured to determine the difference between said first marginal predictability value and said second marginal predictability value for each time point, wherein a decreasing difference between said first marginal predictability value and said second marginal predictability value over time is predictive of ictal onset for said subject.~~

2. (original) The system of claim 1, wherein said first and said second data sensors comprise electrodes.

3. (original) The system of claim 2, wherein said electrodes record electroencephalogram data from said subject.

4. (currently amended) The system of claim 1, wherein said more than one time point is separated by ten minute intervals~~wherein said processor compares the difference between said first marginal predictability value and said second marginal predictability value.~~

5. (currently amended) The system of ~~claim 1~~claim 4, wherein said more than one time point is three or more time points~~difference between said first marginal predictability value and said second marginal predictability value decreases indicating ictal onset.~~
6. (original) The system of claim 1, further comprising a subject warning device configured to receive information from said processor.
7. (original) The system of claim 6, wherein said information comprises information predictive of an ictal onset.
8. (original) The system of claim 6, wherein said subject warning device comprises at least one alarm selected from the group consisting of audible, visual, and tactile alarms.
9. (original) The system of claim 1, wherein said processor further comprises a computer readable memory.
10. (currently amended) The system of claim 1, further comprising an anti-seizure agent administering device in communication with said ~~processor, proecessor~~ wherein said anti-seizure agent administering device is configured to administer~~administers~~ an anti-seizure agent to the subject.
11. (currently amended) The system of claim 10, wherein said anti-seizure agent administering device is selected from the group consisting ~~off~~ micro pumps and electrical stimuli devices.
12. (currently amended) A method for ~~predicting~~detecting ictal onset in a subject comprising:
- a. providing:

- _____ i. _____ a subject;
- ii. _____ a system configured to ~~predict~~~~detect~~ ictal onset, wherein said system comprises:
- i. _____ a first data sensor positioned on the scalp of said subject near the focal point of ictal onset;
- ii. _____ a second data sensor positioned on the scalp of said subject, wherein said second data sensor is remote from said first data sensor; and
- iii. _____ a processor configured to analyze data collected at more than one time point, wherein said data for each time point is collected from said first and said second data sensors, wherein said processor performs a nonlinear mathematical manipulation of said data thereby producing first marginal predictability values and second marginal predictability values for each time point, wherein said processor is configured to determine the difference between said first marginal predictability value and said second marginal predictability value for each time point;
- b. _____ obtaining first marginal predictability values and said second marginal predictability values for more than one time point from a subject with said system;
- c. _____ determining the difference between said first marginal predictability value and said second marginal predictability value between said time points, wherein a decreasing difference between said first marginal predictability value and said second marginal predictability value over time is predictive of ictal onset for said subject.
- a first data sensor positioned on the scalp of said subject near the focal point of ictal onset; a second data sensor positioned on the scalp of said subject, wherein said second data sensor is remote from said first data sensor;
- iii. _____ a processor configured to analyze data collected from said first and said second data sensors to provide a nonlinear mathematical manipulation of said data collected from said first and from said second data sensors, wherein said nonlinear mathematical manipulation produces a first marginal predictability value, and a second marginal predictability value; and

- iv. ~~— a subject warning device in communication with said processor;~~
- and
- b. ~~— contacting said subject with said system;~~
- e. ~~— determining said first marginal predictability value and a second marginal predictability value;~~
- d. ~~— predicting ictal onset in said patient by difference in said first marginal predictability value and a second marginal predictability value.~~

13. (original) The method of claim 12, wherein said first and said second data sensors comprise electrodes.

14. (currently amended) The method of ~~claim 13~~claim 12, wherein said electrodes record electroencephalogram data from said subject.

15. (currently amended) The method of claim 12, wherein said more than one time point is separated by ten minute intervals~~wherein said processor compares the difference between said first marginal predictability value and said second marginal predictability value.~~

16. (currently amended) The method of ~~claim 12~~claim 15, wherein said more than one time point is three or more time points~~difference between said first marginal predictability value and a second marginal predictability value decreases indicating ictal onset.~~

17. (original) The method of claim 12, further comprising providing a subject warning device configured to receive information from said processor.

18. (original) The method of claim 17, wherein said information comprises information predictive of an ictal onset.

19. (original) The method of claim 17, wherein said subject warning device comprises at least one alarm selected from the group consisting of audible, visual, and tactile alarms.
20. (currently amended) The method of claim 12, further comprising an anti-seizure agent administering device in communication with said ~~processor~~~~, processor~~ wherein said anti-seizure agent administering device is configured to administer ~~administers~~ an anti-seizure agent to the subject.
21. (currently amended) The system of claim 20, wherein said anti-seizure agent administering device is selected from the group consisting ~~off~~ micro pumps and electrical stimuli devices.